

5

a third support rigidly connected to first and second support wherein said third support is rotatable about an axis;

a transfer bar wherein paper from said second roll can be fed with paper from the first roll to dispense together;

10

a second proximity detector adapted to trigger the dispensing of paper when a user's hand is positioned within the field of the sensor, the detector comprising:

an oscillator circuit comprising a first comparator adapted to provide an asymmetric signal as input to an antenna sensor;

an antenna sensor adapted to respond to a change in dielectric constant in said sensor's proximity;

15

a first operational amplifier adapted to buffer said antenna sensor to a peak detector wherein said antenna sensor has high impedance and said peak detector has low impedance;

a low pass filter adapted to filter out line noise frequencies in the 50 Hz and 60 Hz line ranges;

20

a second operational amplifier adapted to provide voltage offset to an input signal to said second operational amplifier and to amplify a signal from said peak detector as output from said second operational amplifier;

25

a second comparator adapted to produce an output pulse wherein said output signal from said second operational amplifier is an input signal to said second comparator and is of sufficient duration, amplitude and speed of change to produce said output pulse .

14. The dispenser as in claim 13 further comprising means for providing a selectable dispensed paper length, said means comprising:

5

motor means for dispensing paper from at least one roll;
 a first motor control sub-circuit;
 a first switch adapted to control the first sub-circuit,
 the first sub-circuit being adapted to set the length of paper
 dispensed by said motor means according to the setting of the first
 switch.

15. The dispenser as in claim 13 further comprising means for providing a selectable time delay before dispenser can be reactivated to dispense another length of paper, said means comprising:

5

motor means for dispensing paper from at least one roll;
 a second motor control sub-circuit;
 a second switch adapted to control the second sub-circuit,
 the second sub-circuit being adapted to set a time delay for
 paper dispensed by said motor means according to the setting of
 the second switch.

16. The dispenser as in claim 13 further comprising means for providing a selectable sensitivity of said proximity sensor, said means comprising:

5

a voltage divider in a leg of a reference voltage;
 a third switch adapted to select resistor combinations in said
 reference voltage leg,
 said selected resistors being adapted to set sensitivity of
 said proximity sensor.